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EXAMINER
BARNES, CRYSTAL J

ART UNIT	PAPER NUMBER
2121	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/666,126	BIEBER, JUERGEN
	Examiner	**Art Unit**	
	Crystal J. Barnes	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 February 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-49* is/are pending in the application.

    4a) Of the above claim(s) *13 and 26* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,14-23,27-29,34,38,40-46,48 and 49* is/are rejected.

7)☒ Claim(s) *24,25,30-33,35-37,39 and 47* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The following is a Non-Final Office Action in response to the Amendment

received on 14 February 2005. Claims 1, 14, 20, 22, 27, 29, 34, 40-42, 45 and 47

have been amended. Claims 13 and 26 have been cancelled. Claims 1-12, 14-25 and

27-49 are pending in this application.

Priority

2.   Applicant has not complied with one or more conditions for receiving the

benefit of an earlier filing date under 35 U.S.C. 120 as follows:

An application in which the benefits of an earlier application are desired

must contain a specific reference to the prior application(s) in the first

sentence(s) of the specification or in an application data sheet by identifying the

prior application by application number (37 CFR 1.78(a)(2) and (a)(5)). If the prior

application is a non-provisional application, the specific reference must also include

the relationship (i.e., continuation, divisional, or continuation-in-part) between the

applications except when the reference is to a prior application of a CPA assigned

the same application number.

Response to Arguments

3.   Applicant's arguments, see Remarks page 16, filed 14 February 2005, with

respect to the rejections of claims 1-19, 40 and 41 under 102(e) have been fully

considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view

of USPN 5,822,205 to Arihara et al. and USPN 5,914,66 to Zingsheim et al.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

5.   Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

6.   A broad range or limitation together with a narrow range or limitation that

falls within the broad range or limitation (in the same claim) is considered

indefinite, since the resulting claim does not clearly set forth the metes and

bounds of the patent protection desired. Note the explanation given by the Board

of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd.

Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 27 recites the broad recitation additionally manages memory areas, and the claim also recites particularly for buffering incoming information which is the narrower statement of the range/limitation.

7.   Claim 1 recites the limitation "connected operator unit" in lines 6-8 and 12. There is insufficient antecedent basis for this limitation in the claim. Claim 1 recites the limitation "connected remote operator unit" in line 3.

8.   Claim 5 recites the limitation "connected operator unit" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 1 recites the limitation "connected remote operator unit" in line 3.

9.   Claim 10 recites the limitation "connected operator unit" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 1 recites the limitation "connected remote operator unit" in line 3.

10.   Claim 11 recites the limitation "connected operator unit" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 1 recites the limitation "connected remote operator unit" in line 3.

11.   Claim 20 recites the limitation "connected operator unit" in lines 7-9. There is insufficient antecedent basis for this limitation in the claim. Claim 20 recites the limitation "connected remote operator unit" in line 4.

12.   Claim 22 recites the limitation "connected operator unit" in lines 7-9. There is insufficient antecedent basis for this limitation in the claim. Claim 22 recites the limitation "connected remote operator unit" in line 4.

Claim Rejections - 35 USC § 102

13.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14.   Claims 1, 3-7, 9-12, 14-23, 27, 28, 34, 38, 40 and 41 are rejected under 35

U.S.C. 102(b) as being anticipated by USPN 5,822,205 to Arihara et al.

As per claim 1, the Arihara et al. reference discloses a method for at least

one of operating and observing a device for monitoring at least one control device

that is coupled with a plant, comprising: utilizing at least one connected remote

operator unit (see column 4 lines 63-64, "display-system program group 900") that

communicates with the monitoring device (see column 4 lines 65-67, "processing-

system program group 800"); and providing a function block (see column 5 lines 1-5,

"communication mechanism") which intervenes as an interface module ("display

port, input port, control port") in communications between the monitoring device

("processing-system program group 800") on the one hand and the connected

operator unit ("display-system program group 900") on the other hand, which

evaluates information addressed to the connected operator unit ("display-system

program group 900"), and which processes the information such that the connected

operator unit ("display-system program group 900") directly displays ("display

port") the information as a terminal (see column 3 lines 9-10, "interactive screen"),

wherein the interfacing function block ("communication mechanism") individually

addresses a plurality of connected remote operator units ("display-system program

group 900"), and wherein the interfacing function block ("communication

mechanism") manages (see column 6 lines 13-18, "multiple address management

section 124, reception-side program group management section 125") all the

connected operator units ("display-system program group 900").

As per claim 3, the Arihara et al. reference discloses the function block (see

column 5 lines 1-5, "communication mechanism") is provided in a device ("port")

external to but connected to the monitoring device ("processing-system program

group 800").

As per claim 4, the Arihara et al. reference discloses the function block

("communication mechanism") comprises a software program (see column 4 lines 58-

60, "processing programs A-D").

As per claim 5, the Arihara et al. reference discloses the function block

("communication mechanism") intervenes between a monitoring function block (see

column 4 lines 65-67, "processing-system program group 800") of the monitoring

device ("processing-system program group 800") and the connected operator unit

("display-system program group 900").

As per claim 6, the Arihara et al. reference discloses the interfacing function block ("communication mechanism") performs, at least partially, operator unit functions ("display port, input port").

As per claim 7, the Arihara et al. reference discloses the operator unit functions ("display port, input port") comprise operator unit program steps (see column 5 lines 6-18, "processing programs A, B and display programs A, B, C").

As per claim 9, the Arihara et al. reference discloses for execution, the interfacing function block ("communication mechanism") comprises an additional program part ("input port") loaded at least partially into a working memory (see column 8 lines 22-27, "memory domain") of the monitoring device ("processing-system program group 800").

As per claim 10, the Arihara et al. reference discloses the interfacing function block ("communication mechanism") is configured to be multiply addressed (see column 6 lines 13-18, "multiple address management section 124) by at least the connected operator unit ("display-system program group 900"), to execute individual computations (see column 7 lines 41-47, "multiple kinds of real data") associated with the addressing operator unit ("display-system program group 900"), and to store the computation results (see column 7 lines 41-47, "record

operations section 122e") in a uniquely assigned manner in the addressing operator

unit ("display-system program group 900").

As per claim 11, the Arihara et al. reference discloses the interfacing

software program is configured to be multiply addressed (see column 6 lines 13-18,

"multiple address management section 124) by at least the connected operator unit

("display-system program group 900"), to execute individual computations (see

column 7 lines 41-47, "multiple kinds of real data") associated with the addressing

operator unit ("display-system program group 900"), and to store the computation

results (see column 7 lines 41-47, "record operations section 122e") in a uniquely

assigned manner in the addressing operator unit ("display-system program group

900").

As per claim 12, the Arihara et al. reference discloses the interfacing

function block ("communication mechanism"), is configured to be multiply addressed

(see column 6 lines 13-18, "multiple address management section 124) by plural,

differing operator units ("display-system program group 900"), to execute

individual computations (see column 7 lines 41-47, "multiple kinds of real data")

associated respectively with the plural operator units ("display-system program

group 900"), and to store the computation results (see column 7 lines 41-47,

"record operations section 122e") in a uniquely assigned manner in the respective

operator units ("display-system program group 900").

As per claim 14, the Arihara et al. reference discloses the interface

function block ("communication mechanism") is configured to be addressed with

differing parameters (see column 7 lines 55-62, "emergency data" and lines 63-67,

"real data") of the monitoring device ("processing-system program group 800"), in

order to access the plurality of operator units ("display-system program group

900") individually ("display programs A, B, D").

As per claim 15, the Arihara et al. reference discloses the interface

function block ("communication mechanism") is addressed by at least one of

monitoring logic and a monitoring program ("processing programs A-D") of the

monitoring device ("processing-system program group 800").

As per claim 16, the Arihara et al. reference discloses the differing

parameters ("emergency data" and lines 63-67, "real data") comprise device

addresses (see column 7 lines 56-58, "display-system program group control

section 122g and lines 63-67, "data send request section 126").

As per claim 17, the Arihara et al. reference discloses communication

between the interfacing function block ("communication mechanism") and the

monitoring function block ("processing-system program group 800") of the

monitoring device ("processing-system program group 800") is combined in one

channel (see column 8 lines 43-48, "socket").

As per claim 18, the Arihara et al. reference discloses the interfacing

function block ("communication mechanism") comprises a plurality of channels

("socket") for communicating with a plurality of monitoring function blocks ("each

processing process of the processing-system program group").

As per claim 19, the Arihara et al. reference discloses the interfacing

function block ("communication mechanism") comprises a plurality of channels

("socket") for communicating with a plurality of monitoring devices ("each

processing process of the processing-system program group").

As per claim 20, the Arihara et al. reference discloses a method for at least

one of operating and observing a device for monitoring at least one control device

that is coupled with a plant, comprising: utilizing at least one connected remote

operator unit (see column 4 lines 63-64, "display-system program group 900") that

communicates with the monitoring device (see column 4 lines 65-67, "processing-

system program group 800"); and providing a function block (see column 5 lines 1-5,

"communication mechanism") which intervenes as an interface module ("display

port, input port, control port") in communications between the monitoring device

("processing-system program group 800") on the one hand and the connected

operator unit ("display-system program group 900") on the other hand, which

evaluates information addressed to the connected operator unit ("display-system

program group 900"), and which processes the information such that the connected

operator unit ("display-system program group 900") directly displays ("display

port") the information as a terminal (see column 3 lines 9-10, "interactive screen"),

wherein the interfacing function block ("communication mechanism") individually

addresses a plurality of connected remote operator units ("display-system program

group 900"), and wherein the interfacing function block ("communication

mechanism"), in downlink-side communication from the monitoring device

("processing-system program group 800") to the operator units ("display-system

program group 900"), operates as a distributor (see column 5 lines 6-10, "display

programs A, B").

As per claim 21, the Arihara et al. reference discloses the interfacing

function block ("communication mechanism"), in downlink-side communication from

the monitoring device ("processing-system program group 800") to the operator

units ("display-system program group 900"), operates as a demultiplexer (see

column 5 lines 6-10, "display programs A, B").

As per claim 22, the Arihara et al. reference discloses a method for at least

one of operating and observing a device for monitoring at least one control device

that is coupled with a plant, comprising: utilizing at least one connected remote

operator unit (see column 4 lines 63-64, "display-system program group 900") that

communicates with the monitoring device (see column 4 lines 65-67, "processing-

system program group 800"); and providing a function block (see column 5 lines 1-5,

"communication mechanism") which intervenes as an interface module ("display

port, input port, control port") in communications between the monitoring device

("processing-system program group 800") on the one hand and the connected

operator unit ("display-system program group 900") on the other hand, which

evaluates information addressed to the connected operator unit ("display-system

program group 900"), and which processes the information such that the connected

operator unit ("display-system program group 900") directly displays ("display

port") the information as a terminal (see column 3 lines 9-10, "interactive screen"),

wherein the interfacing function block ("communication mechanism") individually

addresses a plurality of connected remote operator units ("display-system program

group 900"), and wherein the interfacing function block ("communication

mechanism"), in uplink-side communication from the operator units ("display-system

program group 900") to the monitoring device ("processing-system program group

800"), operates as a signal combining module (see column 7 lines 41-47, "records

operations section 122e").

As per claim 23, the Arihara et al. reference discloses the interfacing

function block ("communication mechanism"), in uplink-side communication from the

operator units ("display-system program group 900") to the monitoring device

("processing-system program group 800"), operates as a multiplexer (see column 7

lines 41-47, "records operations section 122e").

As per claim 27, the Arihara et al. reference discloses the interface

function block ("communication mechanism") additionally manages ("multiple

address management section 124, reception-side program group management

section 125") memory areas ("data storage section 123") associated with the

operator units ("display-system program group 900"), particularly for buffering

incoming information (see column 6 lines 28-31, "array operations section 122a").

As per claim 28, the Arihara et al. reference discloses the interface

function block ("communication mechanism") manages ("multiple address

management section 124, reception-side program group management section 125")

the memory areas ("data storage section 123") associated with the operator units

("display-system program group 900") for buffering incoming information (see

column 6 lines 28-31, "array operations section 122a").

As per claim 34, the Arihara et al. reference discloses the interfacing

function block ("communication mechanism") comprises a management part (see

column 5 lines 34-38, "port management and control section 110") and an execution

part ("port management and control section 110") that is called up by the

management part ("port management and control section 110"), that is supplied with

information (see column 7 lines 55-57, "emergency data") associated with a given

one ("display program D") of the operator units ("display-system program group

900"), that subsequently executes program steps ("control port") that are

associated with the given operator unit ("display-system program group 900"), and

that outputs result information ("specified interactive screen").

As per claim 38, the Arihara et al. reference discloses the result

information ("specified interactive screen") of the execution part ("port

management and control section 110") is converted into a predefined transmission

data format (see column 7 lines 56-58, "display-system program group control

section 122g") by the management part ("port management and control section

110") and is transmitted to the given operator unit ("display program D").

As per claim 40, the Arihara et al. reference discloses a transmission data

format (see column 11 lines 39-41 and column 13 lines 43-45, "format

transformation") used in communicating ("data send request section 126") between

the operator units ("display-system program group 900") and the interfacing

function block ("communication mechanism") utilizes a standard data protocol (see

column 11 lines 46-48 and column 13 lines 58-60, "format-converted data").

As per claim 41, the Arihara et al. reference discloses the operator units

("display-system program group 900") are provided with, in addition to an operating

system ("display-system program group"), a program for at least one of displaying

and analyzing data (see column 5 lines 6-28, "display programs A, B, C, D") received

from the interfacing function block ("communication mechanism").

Claim Rejections - 35 USC § 103

15.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

17.   Claims 2, 8, 29, 42-45, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,822,205 to Arihara et al. in view of USPN 5,914,66 to Zingsheim et al.

As per claim 2, the Arihara et al. reference does not expressly disclose the function block is provided in the monitoring device.

The Zingsheim et al. reference discloses

(see column 1 lines 59-65, "The communication system ... automatically each display module, providing address and display information ... automatically reconfigure the display modules upon adding or removing modules from the system ...")

(see column 4 lines 1-11, "... includes a communication interface 132, a keypad interface 134, and a display interface 136. Communication interface 132 includes a receive port 138 and a transmit port 140 for receiving and transmitting data, respectively.")

At the time the invention was made, it would have been obvious to a person

of ordinary skill in the art to modify the communication mechanism taught by the

Arihara et al. reference with the communication interface taught by the Zingsheim

et al. reference to illustrate a communication mechanism/interface embodied in a

device/module in addition to a communication mechanism/interface connected in

between devices/modules.

One of ordinary skill in the art would have been motivated to modify the

communication mechanism with the communication interface to illustrate a

communication mechanism/interface embodied in a device/module in addition to a

communication mechanism/interface connected in between devices/modules to

enhance flexibility of systems with multiple user interfaces/display modules.

As per claim 8, the Arihara et al. reference discloses for execution, the

interfacing function block ("communication mechanism") comprises an additional

program part ("input port") loaded at least partially into a working memory (see

column 8 lines 22-27, "memory domain") of the monitoring device ("processing-

system program group 800").

As per claim 29, the Arihara et al. reference discloses the interfacing function block ("communication mechanism") comprises a software program ("display port, input port, control port") and a new operator unit is initially logged on by the function block by calling a respective starting address for the new operator unit.

The Arihara et al. reference does not expressly disclose a new operator unit is initially logged on by the function block by calling a respective starting address for the new operator unit.

The Zingsheim et al. reference discloses

(see column 1 lines 59-65, "The communication system ... automatically each display module, providing address and display information ... automatically reconfigure the display modules upon adding or removing modules from the system ...")

(see column 6 lines 8-11, "The auto-configuring logic enhances the flexibility of system 100 by enabling the addition, deletion, or exchange of slave modules 104 without requiring intervention of the operator to manually reconfigure system 100.")

(see column 6 lines 24-27, "... system 100 ... recognize additions, deletions or exchanges of slave modules 104a-c and will respond by automatically configuring or reconfiguring slave modules 104a-c.")

(see column 6 lines 28-32, "... master module 102 initiates the auto-configure logic ... including an assign node address packet (step 404) identifying a node address.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the communication mechanism taught by the Arihara et al. reference with the auto-configuring logic taught by the Zingsheim et al. reference.

One of ordinary skill in the art would have been motivated to modify the communication mechanism with the auto-configuring logic to enhance the flexibility of systems with multiple user interfaces/display modules by enabling the addition, deletion, or exchange of user interfaces/display modules without requiring intervention of the operator to manually reconfigure the system.

As per claim 42, the Arihara et al. reference discloses an assembly, comprising: at least one controller coupled into an industrial plant; a monitoring

device (see column 4 lines 65-67, "processing-system program group 800") and

operator units (see column 4 lines 63-64, "display-system program group 900")   ·

remote from and communicating with the monitoring device ("processing-system

program group 800"), configured to monitor the at least one controller; and an

interface function block (see column 5 lines 1-5, "communication mechanism")

coupled as an interface module ("display port, input port, control port") into

communication between the monitoring device ("processing-system program group

800") and the operator units ("display-system program group 900"), and configured

to analyze information addressed respectively to the operator units ("display-

system program group 900") and to process the information such that the

respective operator units ("display-system program group 900") display ("display

port") the processed information as a terminal (see column 3 lines 9-10,

"interactive screen"); wherein the interface function block ("communication

mechanism") comprises: a management part (see column 5 lines 34-38, "port

management and control section 110") configured to manage the operator units

("display-system program group 900") and an execution part ("port management and

control section 110"), which is configured to be called by the management part

("port management and control section 110"), to be supplied with information

associated with the operator units ("display-system program group 900"), to

execute program steps ("control port") respectively associated with the operator

units ("display-system program group 900"), and to output data resulting from the

execution as result information ("specified interactive screen"), respectively, to

the operator units ("display-system program group 900").

The Arihara et al. reference does not expressly disclose at least one

controller coupled into an industrial plant.

The Zingsheim et al. reference discloses

(see column 3 lines 34-41, "... master module 102 ... includes a monitor

interface 110 for monitoring parameters ... may be used to monitor the parameters

of other signals applied to monitor interface 110.")

At the time the invention was made, it would have been obvious to a person

of ordinary skill in the art to modify the processing-system program group taught

by the Arihara et al. reference with the monitoring interface taught by the

Zingsheim et al. reference to provide a means to monitor parameters of other

signals.

One of ordinary skill in the art would have been motivated to modify the

processing-system program group with the monitoring interface to provide a means

to monitor parameters of other signals to enhance flexibility of systems with

multiple user interfaces/display modules.

As per claim 44, the Arihara et al. reference discloses the interface

function block (see column 5 lines 1-5, "communication mechanism") is external to

the monitoring device ("processing-system program group 800").

As per claim 45, the Arihara et al. reference discloses the monitoring device

(see column 4 lines 65-67, "processing-system program group 800") comprises a

monitoring function block ("processing-system program group 800").

As per claim 48, the Arihara et al. reference discloses further comprising

additional monitoring devices ("processing programs A-D"), wherein the interface

function block ("communication mechanism") comprises a plurality of channels (see

column 8 lines 43-48, "socket") for communicating respectively with the plurality of

monitoring devices ("processing programs A-D").

As per claim 49, the Arihara et al. reference discloses further comprising a

plurality of monitoring function blocks (see column 8 lines 43-50, "each processing

process of the processing-system program group"), wherein the interface function

block ("communication mechanism") comprises a plurality of channels ("socket") for

communicating respectively with the plurality of monitoring function blocks ("each

processing process of the processing-system program group").

As per claim 43, the Arihara et al. reference does not expressly disclose the

interface function block is incorporated into the monitoring device.

(see column 1 lines 59-65, "The communication system ... automatically each

display module, providing address and display information ... automatically

reconfigure the display modules upon adding or removing modules from the system

...")

(see column 4 lines 1-11, "... includes a communication interface 132, a keypad

interface 134, and a display interface 136. Communication interface 132 includes a

receive port 138 and a transmit port 140 for receiving and transmitting data,

respectively.")

At the time the invention was made, it would have been obvious to a person

of ordinary skill in the art to modify the communication mechanism taught by the

Arihara et al. reference with the communication interface taught by the Zingsheim

et al. reference to illustrate a communication mechanism/interface embodied in a

device/module in addition to a communication mechanism/interface connected in between devices/modules.

One of ordinary skill in the art would have been motivated to modify the communication mechanism with the communication interface to illustrate a communication mechanism/interface embodied in a device/module in addition to a communication mechanism/interface connected in between devices/modules to enhance flexibility of systems with multiple user interfaces/display modules.

Allowable Subject Matter

18.   Claims 24, 25, 30-33, 35-37, 39 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

19.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to remote process control in general:

USPN 6,772,017 B1 to Dove et al.

USPN 6,717,382 B2 to Graiger et al.

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Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Crystal J. Barnes whose telephone number is

571.272.3679. The examiner can normally be reached on Monday-Friday alternate

Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Anthony Knight can be reached on 571.272.3687. The fax

phone number for the organization where this application or proceeding is assigned

is 703-872-9306.

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CJB
11 April 2005